

the general purpose computer providing a plurality of first outputs to the signal generator such that the signal generator incrementally changes the output signal from a first extreme to a second extreme such that a first color can be displayed on the color display device in the predetermined pattern, the single color being displayed incrementally from a first brightness level to a second brightness level; a photometer device positioned to measure the incremental brightness levels that can be displayed on the color display device, the photometer providing a brightness data for each incremental brightness level to the general purpose computer; the general purpose computer correlates the first outputs with the brightness data to further calculate a plurality of coefficients that represent the signal input-to-first color output relationship of the color display device; and the general purpose computer stores the plurality of coefficients in a memory of the color display device.

2. (Once Amended) The system for computing of claim 1, wherein the general purpose computer further can provide the plurality of coefficients to the color display device.

3. (Once Amended) The system for computing of claim 1, wherein the coefficients are for a polynomial equation that represents the signal input-to-first color output relationship of the color display device.

4. (Once Amended) The system for computing of claim 1, wherein the plurality of coefficients can be communicated to the color display device for storage in a data storage device associated with the color display device.

5. (Once Amended) The system for computing of claim 1, wherein the plurality of coefficients can be utilized in a third order polynomial equation<sup>2</sup> which predicts the brightness of the first color to within 0.3 foot-lamberts for each input signal for the color display device.

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6. (Once Amended) The system for computing of claim 1, wherein the first color is at least one of red, green, and blue.

7. (Once Amended) The system for computing of claim I wherein the color display device can be at least one of a VGA monitor, a MultiSync monitor, a flat panel NCD display, a flat panel SPU display, a flat panel LCD display, a reflective LCD display, and a FED display device.

8. (Three Times Amended) A method of calculating a mathematical representation of the signal input-to-color brightness output relationship of a color display monitor the method comprising the steps of:

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providing input signals having predetermined incremental changes between the input

signals to a color display device such that the color display device produces a predetermined pattern on the color display device's screen;

measuring a brightness of at least a portion of the predetermined pattern at each

incremental change of the input signal and providing the measured brightness as brightness data to a general purpose computer;

correlating the input signals with the brightness data in the general purpose computer;

calculating coefficients of a mathematical representation, in the general purpose

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computer, of the correlated input signals to the brightness data;  
storing the coefficients in a memory device of the color display device.

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9. (Once Amended) The method of claim 8, wherein the input signals represent at least one predetermined color that can be displayed on the color display device.

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10. (Once Amended) The method of claim 8, wherein prior to the step of providing a step of warming up the color display device is performed.

11. (Once Amended) The method of claim 8, wherein the memory device associated with the color display device is a DDC memory.

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12. (Three Times Amended) A color display device adapted to provide a plurality of coefficients to a color display device driver circuit, the coefficients being related to a signal-input-to-brightness-output transfer function of the color display device, the color display device comprising:

input/output circuitry for connecting the color display device to a general purpose computer;

a display screen in communication with the input/output circuitry;

a data storage device of the display screen, for storing, at least, a plurality of coefficients for a signal-input-to-brightness-output transfer function, the plurality of coefficients being calculated after incremental signals are provided to the color display device, via the input/output circuit, such that a predetermined pattern is displayed on the display screen, a brightness data of the predetermined pattern is

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measured and correlated with each the incremental signal, a transfer function, having coefficients, is calculated based on the correlation of the incremental signals and the brightness data, the coefficients then being stored in the data storage device, the coefficients being available to a color display device driver circuit when the color display device is connected to a general purpose computer.

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13. (Once Amended) The color display device of claim 12, wherein the transfer function is a polynomial equation.

14. (Once Amended) The color display device of claim 12, wherein the transfer function is a third order polynomial equation.

15. (Once Amended) The color display device of claim 12, wherein the color display device is a screen utilized by at least one of a personal computer, laptop computer, and computer monitor.

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16. (Three Times Amended) A computer system comprising:

a general purpose computer, the general purpose computer comprising a color display device driver;

a color display device connected to the general purpose computer, the color display device comprising a data storage device containing coefficients for a mathematical representation of an input-output transfer characteristic for the color display device stored the mathematical representation provided

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to the color display device driver in order to aid the standardization of a color brightness.

17. (Once Amended) The computer system of claim 16, wherein the data comprises coefficients to a polynomial transfer function that describes a relationship between an input signal to the color display device and a color brightness on a screen of the color display device.

18. (Once Amended) The computer system of claim 16, wherein the data storage device is memory device.

19. (Once Amended) The computer system of claim 16, wherein the memory device is a DDC memory associated the color display device.

30. (Twice Amended) A method of color management for a color display device, the method comprising the steps of:

generating a mathematical model of a brightness transfer function describing a relationship between color input signals to a color display device and color brightness output of the color display device; and  
storing a coefficient representation of the mathematical model in a memory device of the color display device.

33. (Twice Amended) A color management system for a color display device, comprising:

a means for generating a mathematical model of a brightness transfer function describing